

## **Construction of Generator Room along with Panel Room at CGR – 25' x 18'**

### **A. Demolition & Excavation works:**

1. Demolishing of the existing Pump room and clearing of debris.
2. Excavate the earth for 6 nos. of column footings for the size of 6' x 4' x 5' depth from Ground level.

### **B. Construction works:**

1. Provide 3" sand filling and compact it.
2. Provide 4" PCC 1:4:8 over the sand and compacting.
3. Provide 6 nos. of column footing of 5'6" x 3'6" x 1'6" ht. with mat reinforcement of 12mm dia. @ 5" c/c on both directions.
4. Provide 6 nos. of RC columns of 15" x 9" size with steel reinforcement of 6 nos. of 16mm dia. as main reinforcement and 8mm dia. Stirrups @ 6" c/c.
5. Provide 9" x 12" plinth beam connecting all the columns for the length of 105 RFt. with steel reinforcement of 16mm dia. 3 nos. at top and at bottom with stirrups 8mm dia. @ 6" c/c. Plinth beam top should be below ground level.
6. Construct 9" brick wall above the plinth beam to the level of 2'6" from GL.
7. Fill up the basement with good soil and compact.
8. Provide 3" sand and 3" PCC above the soil to the top level as Basement level.
9. Provide 2 Nos. of 6" Thick RCC pad for the size of 9' x 4' with 12mm as main rod in both directions of single mat.
10. Construct 6 columns up to the level of 9' from the basement level.
11. Provide RC beam of size 9" x 18" connecting all columns with steel reinforcement of main rods 3 nos. of 20mm dia. at top and at bottom with stirrups 8mm dia. @ 6" c/c.
12. Provide RC slab of 6" thickness with 10mm dia. @ 6" c/c in shorter span and 8mm dia. @ 6" c/c in longer span.
13. All the RCC are with M20 Grade concrete and steel with TMT bars only with necessary cover.
14. Construct 9" brick work on 2 sides for the length of 50RFt. and 8'6" height from basement level to roof beam level.
15. Construct 2' wide and 2" thick sunshade for 18' length with necessary reinforcements.
16. Construct 9" BW for a height of 11" on all 4 sides above the roof.
17. Complete structure to be plastered on all sides with CM 1:3.
18. Provide water proofing for the roof with brick jelly lime concrete and necessary slope to drain rain water completely.
19. Lay 9" x 9" pressed tiles above the water proofing with flashing.
20. Provide 4" PVC rain water pipe line from the roof to the ground level.
21. Construct necessary no. of steps to rooms.
22. Complete area to be painted with one coat of exterior primer and two coats of Apex exterior emulsion.
23. Clear all the debris from the site and bring back the original condition of the working area.

## **Construction of Generator Room at 2TBR – 15' x 10'**

### **A. Excavation works:**

1. Excavate the earth for 4 nos. of column footings for the size of 6' x 4' x 5' depth from GL.

### **B. Construction works:**

1. Provide 3" sand filling and compact it.
2. Provide 4" PCC 1:4:8 over the sand and compact.
3. Provide 4 nos. of column footing of 5'6" x 3'6" x 1'6" ht. with mat reinforcement of 12mm dia. @ 5" c/c on both directions.
4. Provide 4 nos. of RC columns of 15" x 9" size with steel reinforcement of 6 nos. of 16mm dia. as main reinforcement and 8mm dia. Stirrups @ 6" c/c.
5. Provide 9" x 12" plinth beam connecting all the columns for the length of 60 RFt. with steel reinforcement of 16mm dia. 3 nos. at top and at bottom with stirrups 8mm dia. @ 6" c/c. Plinth beam top should be below ground level.
6. Construct 9" brick wall above the plinth beam to the level of 2'6" from GL.
7. Fill up the basement with good soil and compact.
8. Provide 3" sand and 3" PCC above the soil to the top level as Basement level.
9. Provide 6" Thick RCC pad for the size of 7' x 3' with 12mm as main rod in both directions of single mat.
10. Construct 4 columns up to the level of 9' from the basement level.
11. Provide RC beam of size 9" x 18" connecting all columns with steel reinforcement of main rods 3 nos. of 20mm dia. at top and at bottom with stirrups 8mm dia. @ 6" c/c.
12. Provide RC slab of 6" thickness with 10mm dia. @ 6" c/c in shorter span and 8mm dia. @ 6" c/c in longer span.
13. All the RCC are with M20 Grade concrete and steel with TMT bars only with necessary cover.
14. Construct 9" brick work on 1 side for the length of 15RFt. and 9' height from basement level to roof beam level.
15. Construct 2' wide and 2" thick sunshade for 15' length with necessary reinforcements.
16. Construct 9" BW for a height of 11" on all 4 sides above the roof.
17. Complete structure to be plastered on all sides with CM 1:3.
18. Provide water proofing for the roof with brick jelly lime concrete and necessary slope to drain rain water completely.
19. Lay 9" x 9" pressed tiles above the water proofing with flashing.
20. Provide 4" PVC rain water pipe line from the roof to the ground level.
21. Construct necessary no. of steps to rooms.
22. Complete area to be painted with one coat of exterior primer and two coats of Apex exterior emulsion.
23. Clear all the debris from the site and bring back the original condition of the working area.

## **Construction of Generator Room along with Panel Room at 3TBR – 15' x 15'**

### **A. Excavation works:**

1. Excavate the earth for 4 nos. of column footings for the size of 6' x 4' x 5' depth from GL.

### **B. Construction works:**

2. Provide 3" sand filling and compact it.
3. Provide 4" PCC 1:4:8 over the sand and compact.
4. Provide 4 nos. of column footing of 5'6" x 3'6" x 1'6" ht. with mat reinforcement of 12mm dia. @ 5" c/c on both directions.
5. Provide 4 nos. of RC columns of 15" x 9" size with steel reinforcement of 6 nos. of 16mm dia. as main reinforcement and 8mm dia. Stirrups @ 6" c/c.
6. Provide 9" x 12" plinth beam connecting all the columns for the length of 50 RFt. with steel reinforcement of 16mm dia. 3 nos. at top and at bottom with stirrups 8mm dia. @ 6" c/c. Plinth beam top should be below ground level.
7. Construct 9" brick wall above the plinth beam to the level of 2'6" from GL.
8. Fill up the basement with good soil and compact.
9. Provide 3" sand and 3" PCC above the soil to the top level as Basement level.
10. Provide 6" Thick RCC pad for the size of 7' x 3' with 12mm as main rod in both directions of single mat.
11. Construct 4 columns up to the level of 9' from the basement level.
12. Provide RC beam of size 9" x 18" connecting all columns with steel reinforcement of main rods 3 nos. of 20mm dia. at top and at bottom with stirrups 8mm dia. @ 6" c/c.
13. Provide RC slab of 5" thickness with 8mm dia. @ 6" c/c in both directions.
14. All the RCC are with M20 Grade concrete and steel with TMT bars only with necessary cover.
15. Construct 9" brick work on 1 side for the length of 15RFt. and 9' height from basement level to roof beam level.
16. Construct 2' wide and 2" thick sunshade for 15' length with necessary reinforcements.
17. Construct 9" BW for a height of 11" on all 4 sides above the roof.
18. Complete structure to be plastered on all sides with CM 1:3.
19. Provide water proofing for the roof with brick jelly lime concrete and necessary slope to drain rain water completely.
20. Lay 9" x 9" pressed tiles above the water proofing with flashing.
21. Provide 4" PVC rain water pipe line from the roof to the ground level.
22. Construct necessary no. of steps to rooms.
23. Complete area to be painted with one coat of exterior primer and two coats of Apex exterior emulsion.
24. Clear all the debris from the site and bring back the original condition of the working area.

## **Construction of Generator Room at 4TBR – 15' x 10'**

### **A. Excavation works:**

1. Excavate the earth for 4 nos. of column footings for the size of 6' x 4' x 5' depth from GL.

### **B. Construction works:**

2. Provide 3" sand filling and compact it.
3. Provide 4" PCC 1:4:8 over the sand and compact.
4. Provide 4 nos. of column footing of 5'6" x 3'6" x 1'6" ht. with mat reinforcement of 12mm dia. @ 5" c/c on both directions.
5. Provide 4 nos. of RC columns of 15" x 9" size with steel reinforcement of 6 nos. of 16mm dia. as main reinforcement and 8mm dia. Stirrups @ 6" c/c.
6. Provide 9" x 12" plinth beam connecting all the columns for the length of 50 RFt. with steel reinforcement of 16mm dia. 3 nos. at top and at bottom with stirrups 8mm dia. @ 6" c/c. Plinth beam top should be below ground level.
7. Construct 9" brick wall above the plinth beam to the level of 2'6" from GL.
8. Fill up the basement with good soil and compact.
9. Provide 3" sand and 3" PCC above the soil to the top level as Basement level.
10. Provide 6" Thick RCC pad for the size of 7' x 3' with 12mm as main rod in both directions of single mat.
11. Construct 4 columns up to the level of 9' from the basement level.
12. Provide RC beam of size 9" x 18" connecting all columns with steel reinforcement of main rods 3 nos. of 20mm dia. at top and at bottom with stirrups 8mm dia. @ 6" c/c.
13. Provide RC slab of 5" thickness with 8mm dia. @ 6" c/c in both directions.
14. All the RCC are with M20 Grade concrete and steel with TMT bars only with necessary cover.
15. Remove the existing window of the room and break open the remaining wall portion to make as door opening to the panel room.
16. Construct 2' wide and 2" thick sunshade for 15' length with necessary reinforcements.
17. Construct 9" BW for a height of 11" on all 4 sides above the roof.
18. Complete structure to be plastered on all sides with CM 1:3.
19. Provide water proofing for the roof with brick jelly lime concrete and necessary slope to drain rain water completely.
20. Lay 9" x 9" pressed tiles above the water proofing with flashing.
21. Provide 4" PVC rain water pipe line from the roof to the ground level.
22. Construct necessary no. of steps to rooms.
23. Complete area to be painted with one coat of exterior primer and two coats of Apex exterior emulsion.
24. Clear all the debris from the site and bring back the original condition of the working area.

**Provision for electrical cable laying:**

1. Dig the ground 18" wide and 12" depth for a length indicated. – 1500 rft.
2. Laying of 3" dia UPVC pipes (2 runs) along the length. – 3000 rft.
3. Construction of manhole chambers (18" X18") with heavy duty MS covers at strategic points  
– 15 nos.

**Note:** Vendors to take necessary measurement during site inspection.